



COMMONWEALTH of VIRGINIA

Department of Health
DIVISION OF SHELLFISH SANITATION
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YORK RIVER: YORKTOWN TO GOODWIN ISLANDS **York County** **Shoreline Sanitary Survey # 052**

Date: July 20, 2005
Survey Period: September 20, 2004 to June 10, 2005
Total Number of Properties: 617
Surveyed by: J.E. Merritt and J.H. Ray

SECTION A: GENERAL

This survey area extends from Reference Point 52 at Fusilier Redoubt (Colonial Fortifications Geological Survey triangulation point "Pitz") to Reference Point 53 at the northwest mouth of the Thorofare (triangulation point "Sandbox"), including the York River shoreline between these two points, Yorktown Creek, Wormley Creek, Wormley Pond, and all their tributaries.

The western and central sections of the area are characterized by elevations of up to 50' near the estuarine shorelines. These sections include the municipality of Yorktown, the historic battlefield, and the Wormley Creek bluffs. The eastern section, which contains the majority of individual on site sewage disposal system deficiencies, is generally low with elevations of between 5' and 10'. This area extends from the eastern mouth of Wormley Creek to the community of Dandy, at the mouth of the Thorofare. Much of the remaining survey area has sandy soil over marl and appears to percolate well. This is especially true of the large Marlbank subdivision at Wormley Creek. Large portions of the watershed such as the Town of Yorktown, Dandy Point, Battle Park, York High School, Johnson Elementary School, Colonial National Historical Park, U. S. Naval Fuel Depot, Virginia Power Co., and the Giant oil refinery are owned by government agencies or corporations and are sewered. The sewered areas are connected to the Hampton Roads Sanitation District York River Treatment Plant. The treatment plant is located outside the present survey boundaries, however, the plant discharges into the Virginia Power discharge canal.

The economy of the area is primarily based upon commerce, tourism, and government installations. Except for the Colonial National Historical Park, the population is moderate to dense throughout the survey area.

Meteorological data indicated that the area received a total of 31.05" of precipitation for the survey period. A monthly breakdown of this data is as follows:

September 20-30, 2004	0.60"	February	1.65"
October	3.92"	March	4.93"
November	4.05"	April	3.81"
December	2.87"	May	3.84"
January 2005	3.14"	June 1- 10, 2005	2.24"
		Total	31.05"

The York River waterfront continued to rebuild and recover from the devastation left in the wake Hurricane 'Isabel' during the entire duration of the survey. The river is generally busy with clamming, other fishing operations, and recreational boaters. U.S. naval vessels frequent the waters on the way to the Yorktown Naval Weapons Station and Cheatham Annex. Coast Guard vessels are common due to the training facility within the survey boundary.

The current restriction on shellfish harvesting is contained in the Notice and Description of Shellfish Area Condemnation #6, revised on 3-7-02. A copy of the current condemnation notice and associated map is attached to this survey report.

This report lists only those properties which have a sanitary deficiency or have other environmental significance. "Direct" indicates that the significant activity or deficiency has a direct impact on shellfish waters. Individual field forms with full information on properties listed in this report are on file in the Richmond Office of the Division of Shellfish Sanitation and are available for reference until superseded by a subsequent resurvey of the area. Data in the report is also made available to local health departments and other agencies to address items that may be out of compliance with other regulatory programs.

SECTION B: SEWAGE POLLUTION SOURCES

SEWAGE TREATMENT FACILITIES

22. **DIRECT** – York River Sewage Treatment Facility, 515 Back Creek Road, Seaford 23696. Owner: Hampton Roads Sanitation District, P.O. Box 5000, Virginia Beach, Virginia 23696. Public-activated sludge sewage treatment facility. 23 employees. Plant design flow is 15 MGD. Treatment facilities consist of 3 primary clarifiers, 2 anaerobic digesters, 3 secondary clarifiers, 1 aeration unit, 6 activated sludge aeration units, 2 chlorine contact tanks, 2 dechlorination contact tanks and dewatering manually by centrifugation. The plant, while located in survey area #53 on Back Creek, discharges into the Virginia Power plant discharge canal that drains into the York River. Permit #VA 006438 from the Department of Environmental Quality, Water Regional Office.

ON-SITE SEWAGE DEFICIENCIES

4. CONTRIBUTES POLLUTION – Location: 401 Cook Road, Yorktown 23690. Owner: Poquoson Commercial Realty, 1730 George Washington Hwy, Yorktown 23693. Dwelling– faux stone and white painted construction block 'A' frame 1 ½ story with white trim. 2 persons. Septic effluent erupting to ground surface at Northeast corner of dwelling. Residence slated for demolition. Sanitary Notice issued 9/28/04 to field #A6.
6. CONTRIBUTES POLLUTION – Location: 108 Cannon Road, Yorktown 23690. Dwelling- gray 1 ½ story vinyl frame with white trim and black shutters. No contact. Septic effluent erupting to ground surface in front of A/C condenser in rear. Saturated soil, algal mat, and septic odor present. Sanitary Notice issued 9/29/04 to field #A51.
7. CONTRIBUTES POLLUTION – Location: 114 Cannon Road, Yorktown 23690. Dwelling– brick and wood shake 1 story with white trim. No contact. Sump pump in septic tank at rear of dwelling with a black corrugated plastic hose exiting the tank surface and discharging into a plywood covered hand dug trench at side of dwelling. Sanitary Notice issued 9-29-04 to field #A53.

10. CONTRIBUTES POLLUTION – 914 Old Wormley Creek Road, Yorktown 23692. Dwelling- white wood siding 1 story. 2 persons. Lid off of septic tank and black PVC pipe exposed going to drainfield. Sanitary Notice issued 9-30-04 to field #167.
11. CONTRIBUTES POLLUTION – 912 Old Wormley Creek Road, Yorktown 23692. Dwelling – white block 1 story. 2 persons. Effluent erupting from drainfield onto ground surface. Sanitary Notice issued 9-30-04 to field #168.
12. CONTRIBUTES POLLUTION – 207 Old Wormley Creek Road, Yorktown 23692. Dwelling – white vinyl and tan brick 2 story with green shutters. 2 persons. Effluent erupting onto ground surface at septic tank and drainfield. Sanitary Notice issued 11-05-04 to field #193.
13. CONTRIBUTES POLLUTION – 206 Bolivar Drive, Yorktown 23692. Dwelling – tan vinyl and brick 2 story with green shutters. 5 persons. Effluent erupting onto ground surface at drain line. Sanitary Notice issued 11-19-04 to field #233.
14. CONTRIBUTES POLLUTION – 220 Bolivar Drive, Yorktown 23692. Dwelling – tan vinyl siding 2 story. 2 persons. Effluent erupting onto ground surface at drainfield. Sanitary Notice issued 11-19-04 to field #234.
15. CONTRIBUTES POLLUTION – 601 Hornsbyville Road, Yorktown 23692. Dwelling – tan vinyl siding 1 story. 2 persons. Effluent erupting onto ground surface at septic tank. Sanitary Notice issued 1-07-05 to field #260.
16. CONTRIBUTES POLLUTION (Kitchen or Laundry Wastes) – 801 Hornsbyville Road, Yorktown 23692. Dwelling – yellow vinyl siding 2 story with white trim. 2 persons. Cracked lid on grease trap. Sanitary Notice issued 1-07-05 to field #271.
17. CONTRIBUTES POLLUTION – 1113 Hornsbyville Road, Yorktown 23692. Dwelling – white siding 1 story with black shutters. 3 persons. Effluent erupting onto ground surface at septic tank. Sanitary Notice issued 3-01-05 to field #288.
18. CONTRIBUTES POLLUTION – 701 Waterview Road, Yorktown 23692. Dwelling – white siding 1 story with grey shutters. 1 person. Effluent erupting onto ground surface at drainfield and septic tank. Sanitary Notice issued 3-10-05 to field #308.
19. CONTRIBUTES POLLUTION, **DIRECT** – 204 Oak Point Road, Yorktown 23692. Dwelling – light grey vinyl siding 1 story. No contact. Effluent erupting onto ground surface from drainfield into storm drain flowing into Wormley Creek. Sanitary Notice issued 3-24-05 to field #326.

POTENTIAL POLLUTION

5. Location: 107 Cannon Road, Yorktown 23690. Dwelling- yellow aluminum frame 1 ½ story with white trim. 3 persons. Owner reports tank fails when doing laundry after heavy rainfall. No evidence of failure at the time of survey.
26. Location: 1116 Hornsbyville Road, Yorktown 23692. Dwelling – white siding 2 story with blue trim. 2 persons. Occupant states septic system is working poorly. No evidence of discharge at time of survey.
27. Location: 1114 Hornsbyville Road, Yorktown 23692. Dwelling – white siding 2 story with green shutters and green roof. No contact. Area beside fence at drainfield shows evidence of past failures. No evidence of discharge at time of survey.

SECTION C: NONSEWAGE WASTE SITES

INDUSTRIAL WASTES

1. United States Coast Guard Training Center, Yorktown, Ballard Street, Yorktown 23690. Marine-multiple brick and glass buildings on large complex. ~6000 persons. Present at the time of survey were 26 above ground storage tanks containing fuels, solvents, and lubricants.
3. United States Naval Fuel Storage Depot, Yorktown, Ballard Street, Yorktown 23690. Marine-multiple painted construction block buildings and construction trailers. 20 persons. Present at the time of the survey were 14 below ground fuel storage tanks with a total volume of 38 million gallons available for the storage of jp8 aviation fuel.
23. **DIRECT** - Virginia Power, 1600 Waterview Road, Yorktown 23692. Business- coal powered electric power plant. 105 employees. Approximately 900 MGD of waste water from various outfalls are discharged into the York River via a primary discharge canal. There are 8 permitted storm water outfalls associated with industrial activity (001, 002, 003, 004, 101, 102, 103 and 111) and 8 permitted outfalls not associated with industrial activity (008, 014, 010, 012, 106, 107, 108 and 110). Outfall 104 is associated with ash disposal pond and is no longer in service and a 6,000 gallon ash leachate collection tank is in place with contents being pumped to HRSD. Outfalls 003 and 004 are also associated with ash disposal pond and receive only contact water from the landfill. Canal contents, which also include York River Sewage Treatment Facility effluent, are pumped to a submerged diffuser pipe 3500' offshore in the York River at a depth of 25'. Plant has VPDES permit #VA 0004103 from the Department of Environmental Quality, Water Regional Office.
25. **DIRECT** - Giant Yorktown Refinery, 2201 Goodwin Neck Road, Grafton 23692. Business- oil refinery. 200 employees. The vast majority of the effluent discharges from this facility are industrial, although a small portion is treated sanitary waste. The treatment facilities handle all sanitary sewage, process water, boiler wastes, wash down water and storm runoff from oily areas. The basic treatment facilities at the refinery function as follows; wastewater enters CPI (Corrugated Plate Interceptor) separators, which remove oily residue from the water. This oil is returned to the refining process. The separated water flows to equalization and retention tanks. The water is pumped from the tanks through an IGF (Induced Gas Floatation) Unit that removes any solids that remain in the water. From the IGF the water proceeds to the activated sludge plant where it enters an aeration tank where it undergoes biological treatment and then passes to a clarifier. Water exits the clarifier and proceeds via pipeline out the refinery dock and is discharged into the York River. VPDES permit #0003018 from the Department of Environmental Quality, Water Regional Office.

SOLID WASTE DUMPSITES

8. Location: intersection of Old Yorktown-Hampton Highway and Cook Road, Yorktown 23690. Public- abandoned solid waste dumpsite. No contact. Construction waste, appliances, tires, etc. dumped onto wooded lot (~ 50 acres), which is overgrown with vegetation. Access road is gated and locked.

SECTION D: BOATING ACTIVITY

MARINAS

9. Marlbank Cove Marina, 111 Lookout Point, Yorktown 23692. Private community boating facility and clubhouse. No contact. 12 slips. Present at time of survey were 5 pleasure boats under 26', 1 pleasure boat over 26'. Boating services include water and electricity at slips. A dumpster is provided for solid waste collection and is serviced by contractor. Sanitary facilities provided for men and women. Sewage disposal is by connection to HRSD and a dump station is provided for boats. A sewage holding tank pump-out is not provided.
21. Wormley Creek Marina (Pookie Enterprises), 1223 Waterview Road, Yorktown 23692. Commercial marina. 83 moorings. Present at time of survey were 3 pleasure boats under 26', 1 work boat under 26', 55 pleasure boats over 26'. Boating services include engine and hull repairs, marine supplies and snacks, in – out ramp, hoist, fuel, water and electricity at all slips. Sanitary facilities provided are 1 commode, 1 urinal, 1 lavatory and 1 shower for men; and 2 commodes, 1 lavatory, and 1 shower for women. Sewage disposal is by septic tank with the drainfield 100' from Wormley Creek. Boat holding tank pump-out equipment and a dump station to empty portable marine toilets.

OTHER PLACES WHERE BOATS ARE MOORED

-None-

UNDER SURVEILLANCE

1. United States Coast Guard Training Center, Yorktown, Ballard Street, Yorktown 23690. Marine-refueling pier / multiple brick and glass buildings on large complex. ~6000 persons. 1 large concrete pier which is shared with the United States Naval Fuel Storage Depot, Yorktown. No vessels were present at the time of survey. Fuel, water, and supply services available. Sanitary facilities provided are 750 commodes, 400 urinals, 450 lavatories, 500 showers for men, and 750 commodes, 450 lavatories, and 500 showers for women. Sewage disposal is direct to Hampton Roads Sanitation District. The facility has pumping and dumping facilities for stored on-board sanitary waste direct to Hampton Roads Sanitation District. An oil spill plan is in place.
2. United States Coast Guard Training Center, Yorktown, Ballard Street, Yorktown 23690. Marine-Wormley Creek Small Boat Marina / multiple brick and glass buildings on large complex. ~6000 persons. 16 slips available. Two work vessels under 26' and 14 work vessels over 26' were tied-up and 2 work vessels under 26' were dry stored at the time of the survey. Fuel, water, electricity, in-out ramp, repair and supply services available. Sanitary facilities provided are 5 commodes, 4 urinals, 5 lavatories, 13 showers for men, and 5 commodes, 5 lavatories, and 13 showers for women. . Sewage disposal is direct to Hampton Roads Sanitation District. The facility has a pump-out station and dumping facilities for removal of stored on-board sanitary waste direct to Hampton Roads Sanitation District. An oil spill plan is in place.
3. United States Naval Fuel Storage Depot, Yorktown, Ballard Street, Yorktown 23690. 20 persons. 1 large concrete pier which is shared with the United States Coast Guard Training Center, Yorktown. No vessels were present at the time of survey. Fuel, water, and supply services available. Sanitary facilities provided are 2 commodes, 1 urinal, 2 lavatories, and 1 shower for men and women. Sewage disposal is direct to Hampton Roads Sanitation District. The facility has pumping and dumping facilities for stored on-board sanitary waste direct to Hampton Roads Sanitation District. An oil spill plan is in place.

24. Giant Yorktown Refinery, 2201 Goodwin Neck Road, Grafton 23692. Deep water terminal pier for loading and offloading of petroleum products. 5 moorings. Sanitary facilities are for refinery employees only and are 2 commodes, 2 lavatories and 2 showers for men. Solid waste disposal is in dumpsters. Waste is pumped via pipeline back to shore for treatment in the refinery's activated sludge wastewater treatment facility. Sanitary facilities are not provided for tankers as each is equipped with marine toilets and holding tanks which are discharged overboard when the vessel is in open water. There are no boat holding tank pump-out facilities required or provided at this location.

SECTION E: CONTRIBUTES ANIMAL POLLUTION
- None-

SUMMARY

Area # 52

YORK RIVER: YORKTOWN TO GOODWIN ISLANDS

July 20, 2005

SECTION B: SEWAGE POLLUTION SOURCES

1. SEWAGE TREATMENT FACILITIES

1 - DIRECT - # 22

0 - INDIRECT - None

1 - B. 1. TOTAL

2. ON-SITE SEWAGE DEFICIENCIES - Correction of deficiencies in this section is the responsibility of the local health department.

1 - CONTRIBUTES POLLUTION, DIRECT - # 19

11- CONTRIBUTES POLLUTION, INDIRECT - # 4, 6, 7, 10, 11, 12, 13, 14, 15, 17, 18

0 - CP (Kitchen or Laundry Wastes), DIRECT - None

1 - CP (Kitchen or Laundry Wastes), INDIRECT - # 16

0 - NO FACILITIES, DIRECT - None

0 - NO FACILITIES, INDIRECT - None

1 13 - B. 2. TOTAL

3. POTENTIAL POLLUTION -

Periodic surveillance of these properties will be maintained to determine any status change.

3 - POTENTIAL POLLUTION - # 5, 26, 27

SECTION C: NON-SEWAGE WASTE SITES

1. INDUSTRIAL WASTE SITES

2 - DIRECT - # 23, 25

2 - INDIRECT - # 1, 3

4 - C. 1. TOTAL

2. SOLID WASTE DUMPSITES

0 - DIRECT - None

1 - INDIRECT - # 8

1 - C. 2. TOTAL

SECTION D: BOATING ACTIVITY

2 - MARINAS - # 9, 21

0- OTHER PLACES WHERE BOATS ARE MOORED - None

4- UNDER SURVEILLANCE - # 1, 2, 3, 20, 24

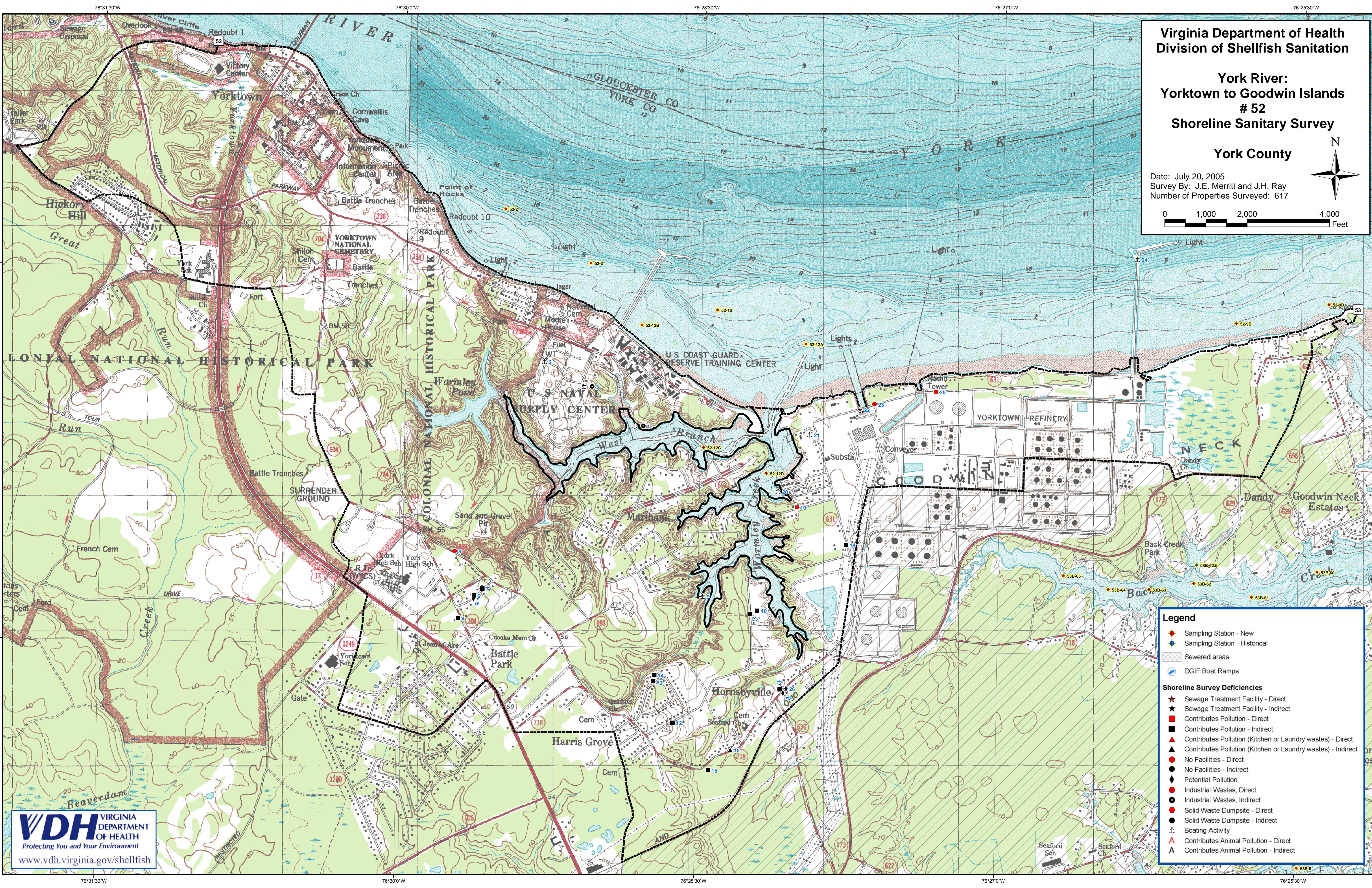
6 - D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

0 - DIRECT - None

0 - INDIRECT - None

0 - E. TOTAL - None



Virginia Department of Health
Division of Shellfish Sanitation

York River:
Yorktown to Goodwin Islands
52
Shoreline Sanitary Survey

York County

Date: July 20, 2005
Survey By: J.E. Merritt and J.H. Ray
Number of Properties Surveyed: 617

0 1,000 2,000 4,000 Feet

N

Legend

- Sampling Station - New
- Sampling Station - Historical
- Sewered areas
- DGIF Boat Ramps

Shoreline Survey Deficiencies

- Sewage Treatment Facility - Direct
- Sewage Treatment Facility - Indirect
- Contributes Pollution - Direct
- Contributes Pollution - Indirect
- Contributes Pollution (Kitchen or Laundry wastes) - Direct
- Contributes Pollution (Kitchen or Laundry wastes) - Indirect
- No Facilities - Direct
- No Facilities - Indirect
- Potential Pollution
- Industrial Wastes, Direct
- Industrial Wastes, Indirect
- Solid Waste Dumpsite - Direct
- Solid Waste Dumpsite - Indirect
- Boating Activity
- Contributes Animal Pollution - Direct
- Contributes Animal Pollution - Indirect